

Benton Lake National Wildlife Refuge  
Chronic Wasting Disease Surveillance Annual Report  
2005

***Background***

The Benton Lake Complex encompasses 20,000 square miles along the western edge of the northern Great Plains in north central Montana. The Complex includes the Benton Lake National Wildlife Refuge, located 12 miles north of Great Falls, and 22 Waterfowl Production Areas (WPAs) located throughout a 10 county Wetland Management District (WMD). The refuge is 12,383 total acres including 6700 acres of shortgrass prairie and 5600 acres of wetlands. The total deer population (mule and white-tailed deer) on the refuge, which is closed to big game hunting, is less than 100 animals. An occasional elk is seen on the refuge.

The Benton Lake complex has a relatively low to moderate risk of significant Chronic Wasting Disease (CWD). This assessment is based on relatively low numbers of deer on the refuge and WPAs that are free to move on and off Service lands. There have been no relocations of elk or deer on or near Service lands in the last 5 years. The only confirmed case of CWD in Montana was found in a captive elk herd near Philipsburg (Montana Dept. of Livestock 2004), which is approximately 50 miles from the Powell County WPAs. The closest game farm to the refuge is 25 miles.

Our CWD planning and management goals and objectives for Benton Lake complex include:

*Management Goal:* In collaboration with Montana Department of Fish, Wildlife and Parks, prevent the establishment of CWD in wild cervids that use the Refuge or WPAs

*Surveillance Goal:* Early detection of CWD to increase the probability of eliminating or controlling the spread of the disease.

*Surveillance Objectives:* To determine the status of CWD in deer and elk on the Refuge and in the WMD and estimate the likelihood that CWD is absent.

***Methods***

During fiscal year 2005, regular surveillance was conducted for CWD on the refuge. Twice a week refuge staff drove an established monitoring route to look for any deer or elk that exhibit symptoms of CWD (emaciation, drooling, staggering) or carcasses that could be submitted for sampling. The date, start time, and weather conditions were recorded before each route. The number and species of all ungulates observed during the route were recorded as well as their general condition.

Due to the remote location of many Service lands within the Wetland Management

District, staff conducted opportunistic surveillance for sick or dead ungulates in conjunction with other job related visits to these units.

If deer or elk were observed exhibiting clinical signs consistent with CWD (emaciation, drooling, staggering, indifferent to surroundings) these animals would be collected and the heads removed and submitted to the MTFWP lab in Bozeman. If freshly dead animals were located, the heads from these animals were collected and submitted to the Bozeman lab as well. Collection methods and safety measures were described in the CWD Plan for Benton Lake Complex (USFWS 2004).

### ***FY 2005 Surveillance Results***

During monitoring, refuge staff observed 194 white-tail deer and 78 pronghorn on the refuge (Figures 1 and 2). All of these animals appeared to be healthy and did not exhibit any symptoms of CWD. In addition, no deer or elk were reported to show symptoms of CWD through opportunistic observations by refuge staff. WMD staff did not observe any deer or elk with clinical signs consistent with CWD during routine work on the district this past year.

During the past year, two carcasses were found opportunistically on the main road that passes through the refuge (Figure 3). The first was found in December 2004 and submitted to Colorado State University. The results were negative. The second sample was taken recently and results are not available at this time.

### ***Discussion***

No new cases of CWD were reported in Montana in 2005, either in wild or captive cervids.

A database was created to record all of the surveillance observations and specimens collected. GIS layers have been created from these datasets. Copies of the database have been submitted with this report and will be submitted to the state of Montana.

During the past year, the Montana Fish, Wildlife and Parks (MTFWP) developed a draft management plan for CWD in free ranging wildlife in Montana (MTFWP 2005). The plan identified a wide variety of alternatives ranging from minimal action to aggressive control if CWD is found in Montana. The plan is expected to be finalized in late 2005. The Project Leader has been coordinating with MTFWP staff during development of this plan and will continue to do so for future implementation of the final plan. Benton Lake Complex staff has also met with MTFWP staff throughout this past year to discuss concerns or updates on CWD in Montana. If MTFWP's final plan necessitates any modifications to Benton Lake Complex's existing CWD surveillance and monitoring plan, those will be addressed in the upcoming year.

Refuge and WMD staff that interact with hunters are prepared to provide information about Refuge surveillance goals, the status of CWD in Montana, facts concerning CWD

transmission, and the potential risk involved.

### *References*

Chronic Wasting Disease Alliance. 2005. News and Updates: Montana Report.  
URL:<http://www.cwd-info.org/index.php/fuseaction/news.main>

Montana Department of Livestock. 2004. CWD information from Montana Department of Livestock. [URL:http://www.liv.state.mt.us](http://www.liv.state.mt.us).

Montana Fish, Wildlife and Parks. 2005. Chronic Wasting Disease Management Plan for Free-ranging Wildlife in Montana. Helena, MT. 89p

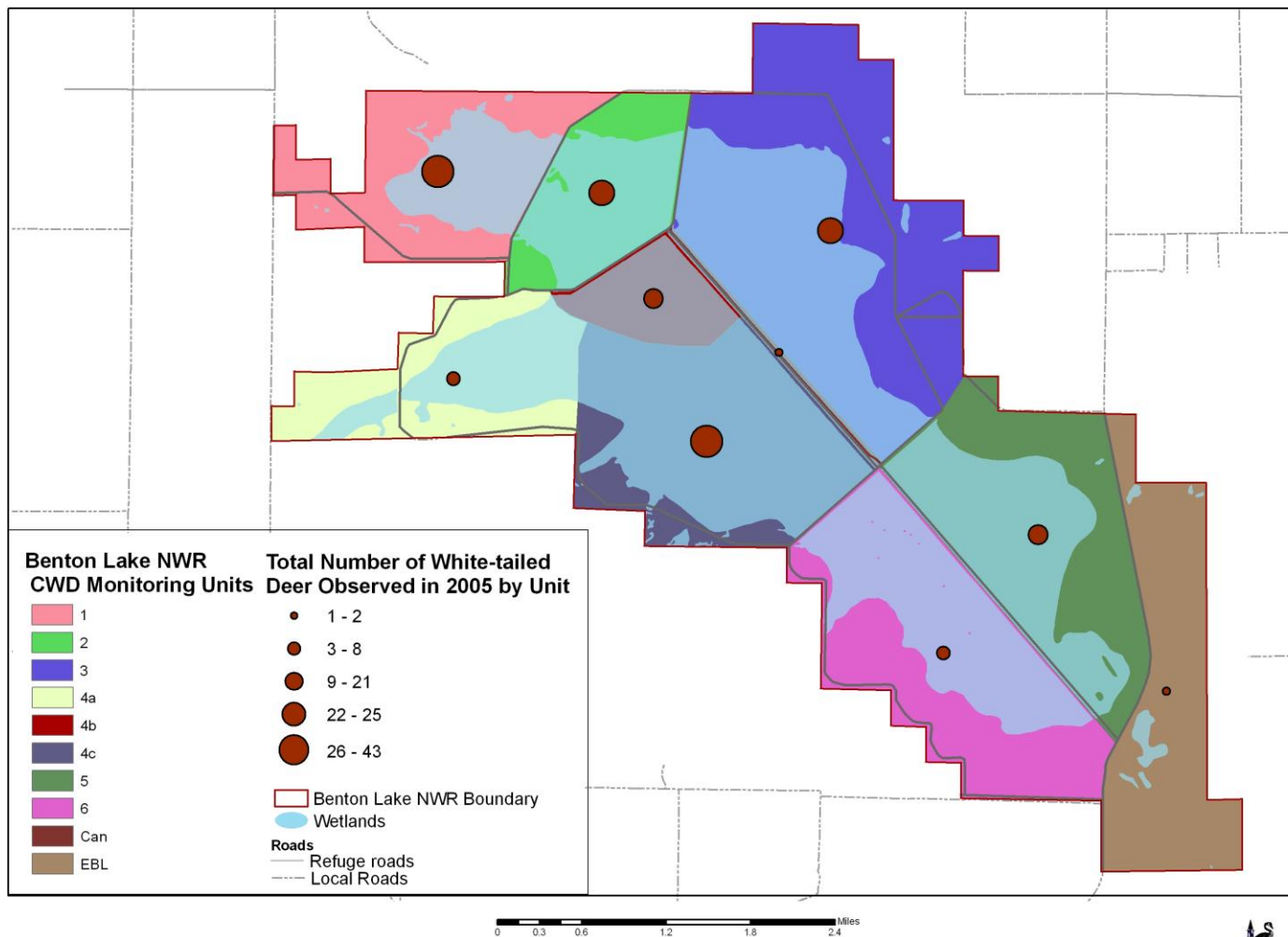
U.S. Fish and Wildlife Service. 2004. Chronic Wasting Disease Surveillance and Monitoring Plan for Benton Lake National Wildlife Refuge Complex. 16pp.



U.S. Fish & Wildlife Service

Benton Lake National Wildlife Refuge

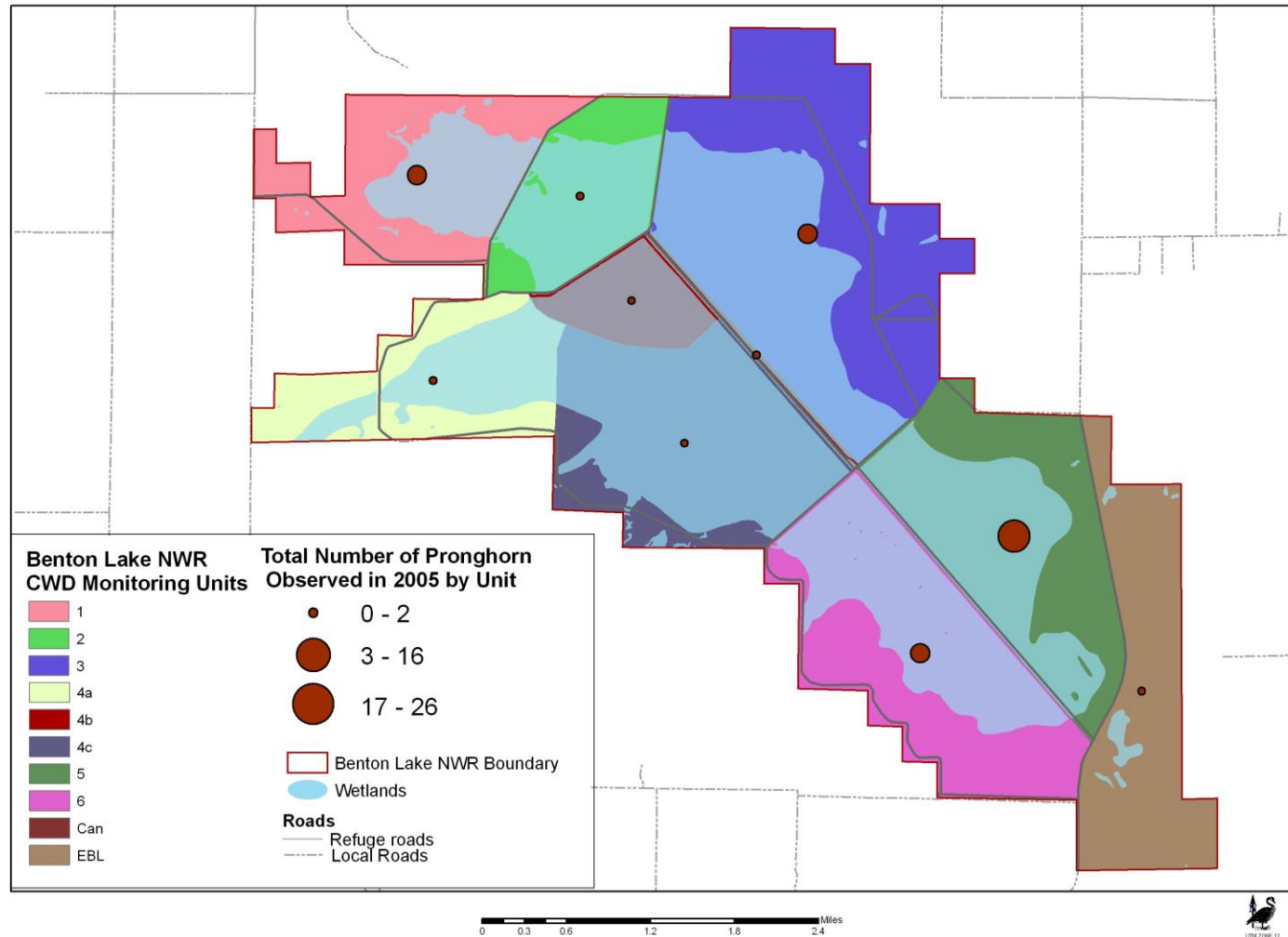
Figure 1. Chronic Wasting Disease Surveillance:  
White-tailed Deer observed in FY2005





U.S. Fish & Wildlife Service  
Benton Lake National Wildlife Refuge

Figure 2. Chronic Wasting Disease Surveillance:  
Pronghorn observed in FY2005





U.S. Fish & Wildlife Service  
Benton Lake National Wildlife Refuge

Figure 3. Chronic Wasting Disease Surveillance:  
Carcass Sample Locations FY2005

